

# Area And Circumference Of A Circle Worksheet

# Geometry

Grades 6 to 8

## Questions

Name:	
Date:	

1 Find the area of this circle. Round your answer to the nearest tenth.



2 Find the area of this circle. Give your answer in terms of  $\pi$ .



3 Find the circumference of this circle. Round your answer to the nearest tenth.



4 Find the circumference of this circle. Give your answer in terms of  $\pi$ .



5 A circle has a radius of 8.4 ft. Calculate its circumference. Give your answer in terms of  $\pi$ .



6 A circle has a radius of  $6\frac{1}{2}$  mm. Calculate its area. Round your answer to the nearest hundredth.



7 A circle has a diameter of 10.3 km. Calculate its area. Round your answer to the nearest tenth.



8 A circle has a radius of 1.25 inches. Calculate its area. Give your answer in terms of  $\pi$ 



9 A circle has a diameter of 420 km. Calculate its area. Give your answer in terms of  $\pi$ .



10 Find the area of this circle. Give your answer to the nearest whole number.



11 A circle has a diameter of 234.8 inches. Calculate its circumference. Give your answer to the nearest tenth.

12 A semicircle has a diameter of 20 m. Calculate its perimeter. Give your answer in terms of  $\pi$ .



13 Find the area of this semicircle. Round your answer to the nearest hundredth.



14 A semicircle has a diameter of 12.3 ft. What is the perimeter of the semicircle? Round your answer to the nearest hundredth.

									/	4	n	S	N	/6	er	
	r	-	-	-	-	-	-	-	-	-	-	-	-	-	•	
1 1	I.														1	
1	I.														1	
	I.														1	
1 1	I.														1	
	L,	÷	-	-	-	÷	÷	÷	÷	÷	÷	÷	-	-	a,	

Answer

**15** A semicircle has a radius of 7 m. What is the area of the semicircle? Round your answer to the nearest hundredth.

					Answei				r			
ſ	ī					1	1	1	1	1	1	1
ł	_	_	_								_	;

16 A circle has a circumference of 157.08 inches. Find the radius.

		/	4n	S١	Ne	er
e -	 	 		-		•
1.1						1
1.1						1
1.1						1
1.1						1
ъ.,	 	 		-		4

17 A circle has an area of  $16\pi$  cm<sup>2</sup>. Find the radius.

							ŀ	4/	1	51	N	e	r
1	-	-	1	ł	-	1	t	-	-	-	-	-	ł.
													i
	_	_		l	_	2		_	_	_	_	_	j

18 A circle has a circumference of  $14\pi$  ft. Calculate its area. Round your answer to the nearest hundredth.

							/	4	n	S	N	/6	er
7	1	-	-	1	1	1	1	t	1	1	1	-	2
													i.
2	l	_	_	2	2	2	2	2	_	2	l	_	5

19 A circle has a circumference of 21 ft. Calculate its area. Round your answer to the nearest hundredth.

								/	4	n	S	N	/6	er
-	-	-	-	-	-	-	-	÷	÷	÷	-	-	-	n.
														5
ì														÷.
1														н.
	-	-	-	7	1	-	-	-	-	-	2	-	-	

20 A circle has an area of  $36\pi$  km<sup>2</sup>. Find the circumference, in terms of  $\pi$ .

								/	4	n	S	N	/6	er	-
-	1	1	1	1	1	1	1	1	ł	1	1	1	1	ì	
														1	
														ļ	

## Answers

Question number	Question	Answers	Standard
1	Find the area of this circle. Round your answer to the nearest tenth.	<i>A</i> = πr <sup>2</sup> = π(9) <sup>2</sup> = 81π≈254.5cm <sup>2</sup>	7.G.B.4
2	Find the area of this circle. Give your answer in terms of $\pi$ .	$r = \frac{6}{2} = 3$ mm, $A = \pi r^2 = 9\pi$ mm <sup>2</sup>	7.G.B.4
3	Find the circumference of this circle. Round your answer to the nearest tenth.	<i>C</i> = 2π <i>r</i> = 2π(21) = 42π≈131.9m	7.G.B.4

Question number	Question	Answers	Standard
4	Find the circumference of this circle. Give your answer in terms of $\pi$ .	$C = \pi d = \pi (17) =$ 17 $\pi$ cm	7.G.B.4
5	A circle has a radius of 8.4 ft. Calculate its circumference. Give your answer in terms of $\pi$ .	$C = 2\pi r = 2\pi (8.4) =$ 16.8 $\pi$ ft	7.G.B.4
6	A circle has a radius of 6 $\frac{1}{2}$ mm. Calculate its area. Round your answer to the nearest hundredth.	$A = πr^2 = π(6\frac{1}{2})^2 =$ 4212π≈132.73mm <sup>2</sup>	7.G.B.4
7	A circle has a diameter of 10.3 km. Calculate its area. Round your answer to the nearest tenth.	<i>A</i> = π <i>r</i> ² = (5.15)2π ≈26.5225π = 83.3 km²	7.G.B.4

Question number	Question	Answers	Standard
8	A circle has a radius of 1.25 inches. Calculate its area. Give your answer in terms of $\pi$ .	$A = \pi r^2 = \pi (1.25)^2 =$ 1.5625 $\pi$ inches <sup>2</sup>	7.G.B.4
9	A circle has a diameter of 420 km. Calculate its area. Give your answer in terms of $\pi$ .	$r = \frac{420}{2} = 210 \text{ km}, A = \pi r^2 = \pi (210)^2 = 44100\pi \text{ km}^2$	7.G.B.4
10	Find the area of this circle. Give your answer to the nearest whole number.	<i>A</i> = π <i>r</i> <sup>2</sup> = π(15.7) <sup>2</sup> = 246.49π≈774 cm <sup>2</sup>	7.G.B.4
11	A circle has a diameter of 234.8 inches. Calculate its circumference. Give your answer to the nearest tenth.	<i>C</i> = π <i>d</i> = π(234.8)≈737.6 inches	7.G.B.4

Question number	Question	Answers	Standard
12	A semicircle has a diameter of 20 m. Calculate its perimeter. Give your answer in terms of $\pi$ .	$P = \pi r + d = \pi(10) + 20$ = 10\pi + 20m	7.G.B.4
13	Find the area of this semicircle. Round your answer to the nearest hundredth.	$r = \frac{10}{2} = 5 \text{cm}, A = \frac{1}{2}$ $\pi r^2 = \frac{1}{2} \pi (5)^2$ $= \frac{25\pi}{2} \approx 39.27 \text{cm}^2$	7.G.B.4
14	A semicircle has a diameter of 12.3 ft. What is the perimeter of the semicircle? Round your answer to the nearest hundredth.	$P = \pi r + d = \pi(6.15) + 12.3 = 6.15\pi + 12.3 = 31.62$ ft	7.G.B.4
15	A semicircle has a radius of 7 m. What is the area of the semicircle? Round your answer to the nearest hundredth.	$A = \frac{1}{2}\pi r^{2} = \frac{1}{2}\pi (7)^{2} = \frac{49\pi}{2} \approx 76.97 \text{m}^{2}$	7.G.B.4
16	A circle has a circumference of 157.08 inches. Find the radius.	$C = 2\pi r, r = \frac{157.08}{2\pi}$ = 25ft	7.G.B.4
17	A circle has an area of $16\pi$ cm2. Find the radius.	$A = \pi r^2$ , $16\pi = \pi r^2$ , $r^2 = 16$ , $r = 4$ cm	7.G.B.4
18	A circle has a circumference of $14\pi$ ft. Calculate its area. Round your answer to the nearest hundredth.	$C = 2\pi r, r = \frac{14\pi}{2\pi}$ = 7ft, A = \pi r^2 = \pi (7)^2 = 153.94ft^2	7.G.B.4

Question number	Question	Answers	Standard
19	A circle has a circumference of 21 ft. Calculate its area. Round your answer to the nearest hundredth.	$C = 2\pi r, r = \frac{21}{2\pi}$ \$\approx 3.34ft, A = \$\pi r^2 \approx \pi (3.34)^2 \approx 35.09ft^2\$	7.G.B.4
20	A circle has an area of $36\pi$ km <sup>2</sup> . Find the circumference, in terms of pi.	$A = \pi r^2$ , 36π = π $r^2$ , $r^2 = 36$ , $r = 6$ km $C = 2\pi r = 2(6)\pi =$ 12πkm	7.G.B.4

# Do you have a group of students who need a boost in math?

Each student could receive a personalized lesson every week from our specialist one-on-one math tutors.

Differentiated instruction for each student



Aligned to your state's standard

Scaffolded learning to close gaps

## Speak to us

thirdspacelearning.com/us/



(929) 298-4593



hello@thirdspacelearning.com

